

## ANGIOSPERMIC FLORA OF ACHANAKMAR-AMARKANTAK BIOSPHERE RESERVE, CENTRAL INDIA

SHILPA VINODIA & A K DIXIT

Department of Botany, Guru-Ghasidas Vishwavidyalaya, Koni, Bilaspur, Chhattisgarh, India

### ABSTRACT

A precise report is done in unexplored locales of Achanakmar-Amarkantak Biosphere Reserve (AABR), Central India, which has uncovered 442 taxa belonging to 345 genera under 109 families. Out of these recorded taxa, 238 are herbs, 49 climbers, 72 trees and 83 bushes species. Most frequent families are Fabaceae with 64 species, Asteraceae with 28 species, Lamiaceae with 22 species, Apocynaceae with 20 species and Acanthaceae with 19 species. Out of 442 taxa, 51 species are assessed as threatened, belonging to 46 genera and 28 families. *Habenaria diphylla*, *Nervillia aragoana*, *Nervillia crociformis*, *Dendrobium herbaeum* and *Acampe rigida* of family Orchidaceae, *Abrus precatorious* var. *alba* (Fabaceae), *Brugmansia suaveolens* (Solanaceae), *Cleome rutidosperma*, *C. gynandra* (Cleomaceae), and *Cinnamomum tamala* (Lauraceae) are accounted for surprisingly and gives update to the angiospermic floral database alongwith IUCN categories.

**KEYWORDS:** Angiosperms, Flora, Achanakmar-Amarkantak Biosphere Reserve & Threatened Taxa

**Received:** Jun 28, 2017; **Accepted:** Jul 18, 2017; **Published:** Jul 21, 2017; **Paper Id:** IJBRAUG20176

### INTRODUCTION

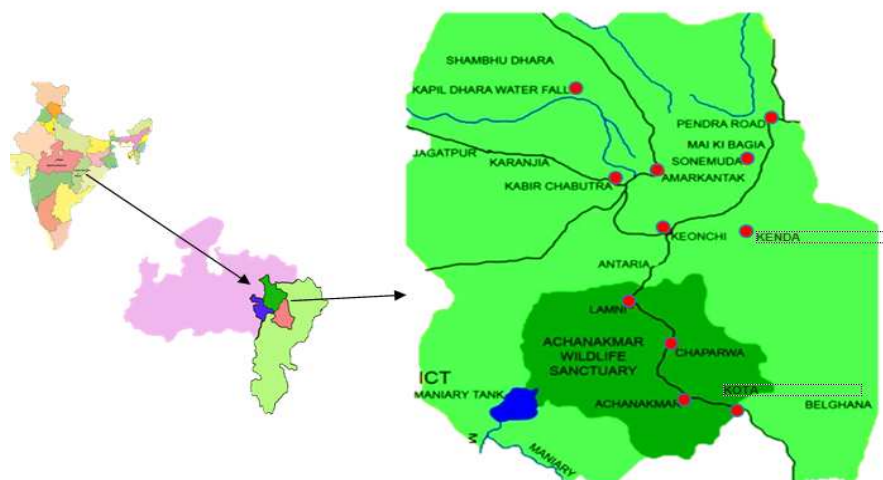
Achanakmar-Amarkantak Biosphere Reserve (AABR) is the 14<sup>th</sup> National Biosphere Reserve of India blow out from Maikal Hill Range to Vindhyan and Satpura hill range in Chhattisgarh and Madhya Pradesh state of Central India. It lies between 22°15' to 20°58' N and 81°25' to 82°5' E occupies 383551.0 hectare of Geographical area. The forest types are: Northern Indian Tropical moist Deciduous Forest (subtype- moist high level, moist low level and moist valley Sal) and Northern Indian Dry deciduous forest (subtype- Moist mixed deciduous and dry mixed deciduous). The major river originating from the buffer zone of AABR- Narmada river flows toward west, other two Johila and Sone rivers flow towards North. Indian Forest Act VII declared AABR as Reserve forest in 1878. Many tribal communities reside here and relied on forest produces for their livelihood.

AABR is endowed with rich biodiversity with varied climate and support highly medicinal flora. But, in present scenario, it is observed that there has been a continuous decline in floristic pattern, influenced by anthropogenic activity like fire, technology and trade (McNeely, 1994). In India, information on medicinally important RET taxa is given by Jain (1983); Nair and Shastri (1988); Margules and Pressey (2000), Ahmedullah and Nayar (1986); Ghate and Vartak (1990); Vajravelu and Daniel (1983); Reid (1992); Oldfield *et al.* (1998), IUCN (2001, 2005), Chaudhary and Sarkar (2002), Das (2003); Burton (2003); Jain and Vairale (2007); Modi & Mathad (2016). Documentation of RET plants in Sindhuragiri hills, Southern Western Ghats, Tamil Nadu was done by Aadhan and Anand (2017), enumerated 45 RET Species, out of which 18 are rare, 11 endangered, 10 are vulnerable, 2 are critically endangered and 01 near threatened. In Central India, many contributions on plant diversity and their RET status have been carried out viz., Mujaffar *et al.* (2013) recorded some Angiospermic plants

new to Central India. Ray and Sainkhediya (2014) reported 94 RET plants distributed in 45 families of which 25 are Vulnerable, 40 are Endangered and 18 are Critically Endangered in Nimar Region of Madhya Pradesh. Bharti (2015) enumerated 37 rare and endangered species from Shahdol (M.P). Tewari *et al.* (2014) investigated 15 threatened wild herbal medicinal species from Bilaspur district. Sinha (2013) reported some threatened plants, 62 as vulnerable, 27 as endangered, and 14 as critically endangered. ENVIS Centre on Conservation of Medicinal Plants reported 47 species as threatened. 1 species has been assigned critically endangered (CR) status, 05 species as Endangered (EN), 11 species as Vulnerable (VU) and 30 species as Near threatened (NT) (ENVIS, 2010). Ahirwar and Sandya (2015) highlighted 33 threatened ethnomedicinal plant of 33 genera and 26 families used by tribal community of Achanakmar-Amarkantak Biosphere Reserve (AABR). From AABR, 1572 species of flora was identified by Anon (2007, 2008, 2010) including 511 flowering plants of medicinal values. Joshi *et al.*, (2010) reported more than 1,111 species of Angiosperms from Achanakmar-Amarkantak Biosphere Reserve, Out of which Twenty eight threatened species was reported as threatened (Ved, *et al.*, 2003; Ved *et al.*, 2006). Vinodia and Dixit (2017) reported a new terrestrial orchid *H. diphylla* from AABR. Literature suggested that previous publication of AABR contain some contradictory, confusing and old data, which needs an updated. An attempt has been made to update existing information along with new taxa and new locales with biosphere reserve.

## MATERIAL AND METHODS

Plants Specimens have been collected from ten localities of Achanakmar-Amarkantak Biosphere Reserve (Fig. 1) between January 2014 – March 2017 in regular interval. Collected specimens were dried, poisoned and preserved using standard herbarium techniques (Jain and Rao, 1977). Voucher specimens are deposited in the Department of Botany, Guru-Ghasidas Vishwavidyalaya, Bilaspur (Chhattisgarh).



**Figure 1: Map of Achanakmar-Amarkantak Biosphere Reserve**

Identification done with the help of regional Floras, Literature, viz. Hooker (1872-1897), Singh *et al.*, (2001), Murthi and Panigrahi (1999); Verma *et al.*, (1993); Mudgal *et al.* (1997), Khanna *et al.*, (2009). Status of each plant species have been assessed on the basis of IUCN criteria 2010 (Version, 8.1); (2010) and list of angiospermic flora has been prepared alphabetically (Table.1). Database of Threatened plants based on IUCN criteria (IUCN, 2010, Ver. 8.1) was

categorized (Table. 2). The five criteria used to frame RET status are: A. declining population (past, present and/or projected). B. Geographic range size, and fragmentation, decline or fluctuations. C. Small population size and fragmentation, decline, or fluctuations. D. Very small population or very restricted distribution. E. Quantitative analysis.

## RESULT AND DISCUSSIONS

A total of 442 angiosperm species have been identified on the basis of present investigation in AABR. These species are distributed in 109 families and 345 genera. 54 % of the total species are represented by herbs, whereas shrubs, trees and climbers are represented by 19%, 16% and 11 % respectively. In dicots, Fabaceae is the largest family represented by 64 species, followed by family Asteraceae with 28 species, while in monocots, Poaceae is the largest family represented by 15 species. Some medicinally and economically important plants encountered during field visit are *Asparagus recemosus* Willd. (Satavar), *Buchanania lanzan* Spreng. (Char), *Celastrus paniculatus* Willd. (Malkangini), *Curculigo orchioides* Gaertn. (Kali-musli), *Gloriosa superba* (Kalihari), *Costus speciosus* (Keokand), *Abrus precatorius* (Gunchi), *Nervillia aragoana*, *Clerodendrum serratum*, *Chlorophytum tuberosum*, *Habenaria digitata*, *Dioscorea bulbifera* L. (Dankkanda) etc.

Moreover, it is likewise watched that there has been a progressive decrease in the vegetation of Biosphere Reserve. Some intrusive species, for example, *Chromolaena odorata*, *Lantana camara*, *Parthenium hysterophorus*, have additionally been experienced amid field visits, which influence the recovery and regeneration status of neighboring species. Beside this, abuse of woodland produces by local residents and aboriginal inhabitants creates irrelevant weight on timberland and makes insignificant stress on flora. In this specific situation, 51 threatened plants have been discovered in the investigation zone, out of which 33% are vulnerable, 43% are Endangered and 24% are critically endangered (Table.2).

## CONCLUSIONS

From present contemplate, it can be presumed that AABR is rich in botanical wealth and support medicinally and economically important threatened taxa. These important plants require uncommon consideration for their preservation in wild. On the other hand, to mitigate the increasing demands of traditional healers and future challenges, awareness programs should be conducted at local levels for sustainable utilization of threatened restorative plants. Present assessment provides an updated and specific floral diversity in AABR (Central India) yet certain regions remain unexplored. Some plants reported in earlier publications were not encountered during present survey may be due to climate change, habitat loss, introduction of invasive taxa, anthropogenic disturbances, soil erosion etc. Yet, some new taxa has likewise been accounted for interestingly for the first time viz., *Habenaria diphylla*, *Nervillia aragoana*, and *Nervillia crociformis* (Terrestrial orchids), *Dendrobium herbaeceum* and *Acampe rigida* (Epiphytic orchids) of family Orchidaceae, *Abrus precatorius* var. *alba* (Fabaceae), *Brugmansia suaveolens* (Solanaceae), *Cleome rutidosperma*, *Cleome gynandra* (Cleomaceae) and *Cinnamomum tamala* (Lauraceae) which gives an evidence for more conceivable outcomes of discovering fortunes of new taxa and numerous significant threatened species.

**Table 1: Angiospermic Flora of Achanakmar-Amarkantak Biosphere Reserve**

Plant species	Family	Habit	Wild/Cultivated
<i>Abelmoschus esculentus</i> (L.) Moench	Malvaceae	Shrub	W
<i>Abelmoschus ficulneus</i> (L.) White & Arn. Ex Wight	Malvaceae	Shrub	W
<i>Abrus precatorius</i> L.	Fabaceae	Climber	W
<i>Abrus precatorius</i> var. <i>alba</i> *	Fabaceae	Climber	W

<i>Abutilon indicum indicum</i>	Malvaceae	Herb	W
<i>Acacia leucophloea</i> (Roxb.) Willd.	Fabaceae	Tree	W
<i>Acacia mearnsii</i> De Wild.	Fabaceae	Shrub	W
<i>Acacia nilotica</i> (L.) Delile	Fabaceae	Tree	W
<i>Acacia torta</i> (Roxb.) Craib.	Fabaceae	Shrub	W
<i>Acalypha indica</i> L.	Euphorbiaceae	Herb	W
<i>Acampe praemorsa</i> (Roxb.) Blatt. & Mc.Cann.	Orchidaceae	Herb	W
<i>Acampe rigida</i> *	Orchidaceae	Herb	W
<i>Achyranthes aspera</i> L.	Amaranthaceae	Herb	W
<i>Adhatoda vasica</i> Nees	Acanthaceae	Shrub	W
<i>Adina cordifolia</i> (Roxb.) Brandis	Rubiaceae	Tree	W
<i>Aeginetia indica</i> L.	Orabanchaceae	Herb	W
<i>Aegle marmelos</i> (L.) Correa	Rutaceae	Tree	W
<i>Aegopodium podagraria</i>	Apiaceae	Tree	W
<i>Aerides multiflora</i> Roxb.	Orchidaceae	Herb	W
<i>Aerva lanata</i> (L.) Juss. Ex. Schult	Amaranthaceae	Herb	W
<i>Aeschynomene indica</i> Sensee auct.	Fabaceae	Herb	W
<i>Aeschynomene virginica</i>	Fabaceae	Herb	W
<i>Ageratum houstonianum</i> Mill.	Asteraceae	Herb	W
<i>Agertum conyzoides</i> L.	Asteraceae	Herb	W
<i>Ailanthus excelsa</i>	Simaroubaceae	Tree	W
<i>Alangium salvifolium</i> (L. F.) Wangerin	Cornaceae	Tree	W
<i>Albizia lebbek</i> (L.) Benth.	Fabaceae	Tree	W
<i>Albizia procera</i> (Roxb.) Benth.	Fabaceae	Tree	W
<i>Albizia saman</i> (Jacq.) Merr.	Fabaceae	Tree	C
<i>Allamanda cathlica</i> L.	Apocynaceae	Climber	C
<i>Alstonia scholaris</i> (L.) R.Br.	Apocynaceae	Tree	C
<i>Alternanthera parrynochooides</i> A. St.-Hil.	Amaranthaceae	Herb	W
<i>Alysicarpus sp.</i>	Fabaceae	Herb	W
<i>Alysicarpus vaginalis</i> (L.) DC.	Fabaceae	Herb	W
<i>Amaranthus hybridus</i> L.	Amaranthaceae	Herb	W
<i>Amaranthus hypochondriacus</i> L.	Amaranthaceae	Herb	W
<i>Amaranthus viridis</i> L.	Amaranthaceae	Herb	W
<i>Ammannia baccifera</i> L.	Lythraceae	Herb	W
<i>Ampelocissus latifolia</i> (Roxb.) Planch.	Vitaceae	Climber	W
<i>Anagallis arvensis</i> L.	Primulaceae	Herb	W
<i>Andrographis echinoides</i> (L.) Nees.	Acanthaceae	Herb	W
<i>Andrographis paniculata</i> (Burm. fil.) Nees	Acanthaceae	Herb	W
<i>Anisochilus carnosus</i> (L.f.) Wall.	Lamiaceae	Herb	W
<i>Anisomeles indica</i> (L.)	Lamiaceae	Herb	W
<i>Annona reticulata</i> L.	Annonaceae	Tree	C
<i>Annona squamosa</i> L.	Annonaceae	Tree	C
<i>Anogeissus latifolia</i> (Roxb. ex. DC.)	Combretaceae	Tree	W
<i>Anthocephalus cadamba</i> (Roxb.) Miq.	Rubiaceae	Tree	W
<i>Antigonon leptopus</i> Hook & Arn	Polygonaceae	Climber	W
<i>Apluda sp.</i>	Poaceae	Herb	W
<i>Ardisia humilis</i> Blumea	Myrsinaceae	Shrub	W
<i>Argemone mexicana</i> L.	Papaveraceae	Herb	W
<i>Argemone ochroleuca</i> Sweet	Papaveraceae	Herb	W
<i>Arisaema tortuosum</i> (Wall.) Schott	Araceae	Herb	W
<i>Aristida adscensionis</i> L.	Poaceae	Herb	W
<i>Aristolochia indica</i> L.	Aristolochiaceae	Climber	W
<i>Arum maculatum</i> L.	Araceae	Herb	W
<i>Arundinella pumila</i> (Hochst. Ex A. Rich.) Steud.	Poaceae	Herb	W
<i>Asparagus racemosus</i> Willd	Asparagaceae	Climber	W
<i>Atrocarpus heterophyllus</i> Lam.	Moraceae	Tree	W

<i>Bahuniia vahlii</i> Wight & Arn.	Fabaceae	Climber	W
<i>Barleria cristata</i> L.	Acanthaceae	Herb	W
<i>Barleria prinoitis</i> L.	Acanthaceae	Herb	W
<i>Basella alba</i> L.	Basellaceae	Herb	W
<i>Bauhinia acuminata</i> L.	Fabaceae	Shrub	W
<i>Bauhinia malabarica</i> Roxb.	Fabaceae	Tree	W
<i>Bauhinia sp.</i>	Fabaceae	Tree	W
<i>Bauhinia variegata</i> Linn.	Fabaceae	Tree	W
<i>Bidens biternata</i> (Lour.) Merr. & Shreff	Asteraceae	Herb	W
<i>Bidens pilosa</i> L.	Asteraceae	Herb	W
<i>Bigonia picta</i> Sm.	Bigoniaceae	Herb	W
<i>Biophytum sensitivum</i> (L.) DC.	Oxalidaceae	Herb	W
<i>Bixa orellana</i> L.	Bixaceae	Shrub	C
<i>Blainvillea acmella</i> (L.) philipson	Asteraceae	Herb	W
<i>Blepharis maderaspatensis</i> (L.) B. Heyne ex Roth	Acanthaceae	Herb	W
<i>Blumea fistulosa</i> (Roxb.) Kuntze	Asteraceae	Herb	W
<i>Blumea lacera</i> (Burm.f.) DC.	Asteraceae	Herb	W
<i>Boerhavia erecta</i> L.	Nyctaginaceae	Herb	W
<i>Bombax ceiba</i> L.	Bombacaceae	Tree	W
<i>Borreria stricta</i> (L.f.) DC.	Rubiaceae	Herb	W
<i>Brassica campestris</i> L.	Brassicaceae	Herb	W
<i>Brugmansia suaveolens</i> (Hemp. & Bonpl. Ex Willd)*	Solanaceae	Shrub	W
<i>Bryophyllum pinnatum</i> (Lam.) Oken.	Crassulaceae	Herb	W
<i>Bupleurum ramosissimum</i> W. & A.	Apiaceae	Tree	W
<i>Butea monosperma</i> (Lam.) Taub.	Fabaceae	Tree	W
<i>Byttneria herbaceae</i> Roxb.	Malvaceae	Herb	W
<i>Caesalpinia bonducella</i> (L.) Roxb.	Fabaceae	Shrub	W
<i>Caesalpinia decapetala</i> (Roth) Aiston.	Fabaceae	Shrub	W
<i>Caesalpinia pulcherima</i> var. <i>flava</i>	Fabaceae	Shrub	W
<i>Caesulia axillaris</i> Roxb.	Asteraceae	Herb	W
<i>Cajanus cajan</i> (L.) Millep.	Fabaceae	Climber	W
<i>Callistemon viminalis</i> (Sol.ex Gaertn.) G.Don	Myrtaceae	Tree	W
<i>Calotropis gigantea</i> (L.) W.T. Aiton	Apocynaceae	Shrub	W
<i>Calotropis procera</i> (Aiton) W.T.Aiton	Apocynaceae	Shrub	W
<i>Canna indica</i> L.	Cannaceae	Herb	W
<i>Capparis zeylanica</i> L.	Capparaceae	Climber	W
<i>Cardamine hirsuta</i> L.	Brassicaceae	Herb	W
<i>Careya arborea</i> Roxb.	Lecythidaceae	Tree	W
<i>Carica papaya</i> L.	Caricaceae	Shrub	C
<i>Casearia graveolens</i> Dalzell	Salicaceae	Tree	W
<i>Cassia alata</i> L.	Fabaceae	Shrub	W
<i>Cassia fistula</i> L.	Fabaceae	Tree	W
<i>Cassia mimosoides</i>	Fabaceae	Herb	W
<i>Cassia occidentalis</i> L.	Fabaceae	Herb	W
<i>Cassia siamea</i>	Fabaceae	Tree	W
<i>Cassia tora</i> L.	Fabaceae	Herb	W
<i>Cassia uniflora</i>	Fabaceae	Herb	W
<i>Catharanthus roseus</i> (L.) G. Don.	Apocynaceae	Herb	W
<i>Catunaregam spinosa</i> (Thunb.) Tirveng	Rubiaceae	Tree	W
<i>Cayratia trifolia</i> (L.) Domin	Vitaceae	Climber	W
<i>Celosia argentea</i> L.	Amaranthaceae	Herb	W
<i>Cenchrus ciliaris</i> L.	Poaceae	Herb	W
<i>Centella asiatica</i> (L.) Urb.	Apiaceae	Herb	W
<i>Chenopodium album</i> L.	Amaranthaceae	Herb	W
<i>Chlorophytum tuberosum</i> (Roxb) Baker	Asparagaceae	Herb	W
<i>Chromolaena odorata</i> (L.) R. M. King & H. Rob.	Asteraceae	Shrub	W

<i>Chrysanthemum indicum</i> L.	Asteaceae	Herb	W
<i>Cinnamomum tamala</i> *	Lauraceae	Tree	W
<i>Cirsium vulgare</i> (Savi) Ten.	Asteraceae	Herb	W
<i>Cissus quadrangularis</i> L.	Vitaceae	Climber	W
<i>Cissus subrhomboides</i> (Baker) Planch	Vitaceae	Climber	W
<i>Citrus limon</i> (L.) Burm. F.	Rutaceae	Shrub	W
<i>Cleistanthus collinus</i>	Phyllanthaceae	Tree	W
<i>Cleome gynandra</i> L.*	Cleomaceae	Herb	W
<i>Cleome rutidosperma</i> DC.*	Cleomaceae	Herb	W
<i>Cleome viscosa</i> L.	Cleomaceae	Herb	W
<i>Clerodendrum phlomoides</i>	Lamiaceae	Shrub	W
<i>Clerodendrum chinensis</i> (Osbeck.) Mabb.	Lamiaceae	Shrub	W
<i>Clerodendrum indicum</i> (L.) Kuntze	Lamiaceae	Shrub	W
<i>Clerodendrum infortunatum</i> L.	Lamiaceae	Shrub	W
<i>Clerodendrum serratum</i> (L.) Moon Synonym of <i>Rothea serrata</i> (L.) Steane & Mabb.	Lamiaceae	Shrub	W
<i>Clitoria ternatea</i> L.	Fabaceae	Climber	W
<i>Coccinia grandis</i> (L.) Voigt	Cucurbitaceae	Climber	W
<i>Coldenia procumbens</i> L.	Boraginaceae	Herb	W
<i>Colocasia esculenta</i> (L.) Schott	Araceae	Herb	W
<i>Combretum roxburghii</i> Sprengel.	Combretaceae	Climber	W
<i>Commelina benghalensis</i> L.	Commelinaceae	Herb	W
<i>Conscora alata</i> (Roth) Wall.	Gentianaceae	Herb	W
<i>Conscora diffusa</i> (Vahl) R. Br.	Gentianaceae	Herb	W
<i>Corchorus olitorius</i> L.	Malvaceae	Herb	W
<i>Cordia dichotoma</i> G. Forst.	Boraginaceae	Tree	W
<i>Coriandrum sativum</i> L.	Apiaceae	Herb	C
<i>Costus speciosus</i> (J. Koenig) Sm.	Costaceae	Shrub	W
<i>Crassocephalum crepidioides</i> (Benth.) S. Moore	Asteraceae	Herb	W
<i>Crinum herbertii</i> Schreck	Amaryllidaceae	Herb	W
<i>Crossandra infundibuliformis</i> (L.) Nees	Acanthaceae	Herb	C
<i>Crotolaria juncea</i> L.	Fabaceae	Herb	W
<i>Crotolaria pallida</i> Aiton	Fabaceae	Herb	W
<i>Croton sparsiflorus</i> Morong	Euphorbiaceae	Herb	W
<i>Cryptolepis buchani</i> Roemer & Schultes	Apocynaceae	Climber	W
<i>Cryptostegia grandiflora</i> (Roxb.) R. Br.	Apocynaceae	Climber	W
<i>Curculigo orchoides</i> Gaertn.	Hypoxidaceae	Herb	W
<i>Curcuma caesia</i> Roxb.	Zingiberaceae	Herb	W
<i>Curcuma pseudomontana</i> J. Graham	Zingiberaceae	Herb	W
<i>Cuscuta reflexa</i> Roxb.	Convolvulaceae	Climber	W
<i>Cyanodon dactylon</i> (L.) Pers	Poaceae	Herb	W
<i>Cyanotis axillaris</i> (L.) D. Don. Ex Sweet	Commelinaceae	Herb	W
<i>Cyanotis cristata</i> (L.). D. Don.	Commelinaceae	Herb	W
<i>Cyathocline purpurea</i> (Buch.-Ham.ex D. Don) Kuntze	Asteraceae	Herb	W
<i>Cyperus difformis</i> L.	Cyperaceae	Herb	W
<i>Cyperus polystachyos</i> Rottb.	Cyperaceae	Herb	W
<i>Cyperus rotundus</i> L.	Cyperaceae	Herb	W
<i>Dalbergia sisoo</i> DC.	Fabaceae	Tree	W
<i>Datura alba</i> Nees.	Solanaceae	Shrub	W
<i>Datura metal</i> L.	Solanaceae	Shrub	W
<i>Delonix regia</i> (Hook.) Raf	Fabaceae	Tree	C
<i>Dendrobium herbaceum</i> Lindl.*	Orchidaceae	Herb	W
<i>Desmodium gangeticum</i> (L.) DC.	Fabaceae	Herb	W
<i>Desmodium pulchellum</i> (L.) Benth.	Fabaceae	Herb	W
<i>Desmodium triflorum</i> (L.). DC.	Fabaceae	Herb	W
<i>Desmodium velutinum</i> (Willd.) Dc	Fabaceae	Herb	W

<i>Dichanthium annulatum</i> (Forssk.) Stapf.	Poaceae	Herb	W
<i>Dioscorea bulbifera</i> L.	Dioscoreaceae	Climber	W
<i>Dioscorea pentaphylla</i> L.	Dioscoreaceae	Climber	W
<i>Diospyros malabarica</i> (Desr.) Kostel.	Ebenaceae	Tree	W
<i>Diospyros melanoxylon</i> Roxb.	Ebenaceae	Tree	W
<i>Drimia indica</i> (Roxb.) Jessop	Asparagaceae	Herb	W
<i>Drosera burmannii</i> Vahl.	Droseraceae	Herb	W
<i>Duranta erecta</i> L.	Verbenaceae	Shrub	C
<i>Ecilipta prostrata</i> (L.)	Asteraceae	Herb	W
<i>Ehretia laevis</i> Roxb.	Ehretiaceae	Tree	W
<i>Elastostema cuneatum</i> Wight	Urticaceae	Herb	W
<i>Elephantopus scaber</i> L.	Asteraceae	Herb	W
<i>Emilia Sonchifolia</i> (L.) Dc. Ex. Wight	Asteraceae	Herb	W
<i>Eragrostis cilianensis</i> (All.) Janch	Poaceae	Herb	W
<i>Eragrostis unioides</i> (Retz.) Nees ex Steud.	Poaceae	Herb	W
<i>Eranthemum purpurascens</i> Wight ex Nees	Acanthaceae	Herb	W
<i>Eriocaulon quinquangulare</i> L.	Eriocaulaceae	Herb	W
<i>Eryngium foetidum</i> L.	Apiaceae	Herb	W
<i>Erythrina indica</i> Lam.	Fabaceae	Herb	W
<i>Eucalyptis globulus</i> Labill.	Myrtaceae	Tree	W
<i>Euphorbia heterophylla</i> L.	Euphorbiaceae	Herb	W
<i>Euphorbia hyperifolia</i> L.	Euphorbiaceae	Herb	W
<i>Euphorbia hirta</i> .	Euphorbiaceae	Herb	W
<i>Euphorbia microphylla</i> Lam	Euphorbiaceae	Herb	W
<i>Euphorbia thymifolia</i> L.	Euphorbiaceae	Herb	W
<i>Evolvulus alsinoides</i> (L.) L.	Convolvulaceae	Herb	W
<i>Evolvulus nummularius</i> L.	Convolvulaceae	Herb	W
<i>Exacum pendunculatum</i> L.	Gentianaceae	Herb	W
<i>Ficus arnottiana</i> (Miq.) Miq.	Moraceae	Tree	W
<i>Ficus benghalensis</i> L.	Moraceae	Tree	W
<i>Ficus benamina nuda</i> (Miq.) Barrett	Moraceae	Tree	W
<i>Ficus mollis</i> Vahl	Moraceae	Tree	W
<i>Ficus religiosa</i> L.	Moraceae	Tree	W
<i>Flemingia semialata</i> W.T. Aiton	Fabaceae	Herb	W
<i>Galinsoga parviflora</i> Cav.	Asteraceae	Herb	W
<i>Gardenia gummifera</i> L. F.	Rubiaceae	Shrub	W
<i>Glandularia pulchella</i> (Sweet) Tronc.	Verbenaceae	Herb	W
<i>Gliricidia sepium</i> (Jacq.) Walp.	Fabaceae	Shrub	W
<i>Globba marantina</i> L.	Zingiberaceae	Herb	W
<i>Gloriosa superba</i> L.	Colchicaceae	Climber	W
<i>Gnaphalium</i> sp.	Asteraceae	Herb	W
<i>Gompherina celosioides</i> Mart.	Asteraceae	Herb	W
<i>Gossypium hirsutum</i> L.	Malvaceae	Shrub	C
<i>Grangea maderspatana</i> (L.) Poir.	Asteraceae	Herb	W
<i>Grewia rothii</i> DC.	Tiliaceae	Shrub	W
<i>Habenaria digitata</i> Lindl.	Orchidaceae	Herb	W
<i>Habenaria diphylla</i> (Ninumo) Dalzell*	Orchidaceae	Herb	W
<i>Hedychium coronarium</i> J. Koenig	Zingiberaceae	Herb	C
<i>Heliconia rostrata</i> Ruiz & Pav.	Heliconiaceae	Herb	W
<i>Helicteres isora</i> L.	Malvaceae	Shrub	W
<i>Hemidesmus Indicus</i> (L.) R. Br.	Apocynaceae	Climber	W
<i>Hemigraphis laterbosa</i> (Roth) Nees	Acanthaceae	Herb	W
<i>Heteropogon contortus</i> (L.) P. Beauv. ex Roem & Schult	Poaceae	Herb	W
<i>Hibiscus rosa sinensis</i> L.	Malvaceae	Shrub	C
<i>Hibiscus sabdariffa</i> L.	Malvaceae	Shrub	C
<i>Hiptage benghalensis</i> (L.) Kurz.	Malpighiaceae	Shrub	W



<i>Holarrhena antidysentrica</i> (Roxb. Ex Fleming) Wallich ex A. DC	Apocynaceae	Shrub	W
<i>Hybanthus enneaspermus</i> (L.) F. V. Muell.	Violaceae	Herb	W
<i>Hydrocotyle sibthorpioides</i> Lam.	Apiaceae	Herb	W
<i>Hygrophilla auriculata</i> (Schumach.)Heine	Acanthaceae	Herb	W
<i>Hymenocallis littoralis</i> (Jacq.) Salisb.	Amaryllidaceae	Herb	W
<i>Hyptis suaveolens</i> (L.) Poit	Lamiaceae	Herb	W
<i>Ichnocarpus frutescens</i> (L.) W.T. Aiton	Apocynaceae	Climber	W
<i>Impatiens balsamina</i> L.	Balsaminaceae	Herb	W
<i>Indigofera linnaei</i> Ali.	Fabaceae	Herb	W
<i>Indigofera tinctoria</i> L.	Fabaceae	Herb	W
<i>Iphigenia indica</i> (L.) A. Gray ex Kunth	Colchicaceae	Herb	W
<i>Ipomoea aquatica</i> Forsskal	Convolvulaceae	Climber	W
<i>Ipomoea batata</i> (L.) Lam	Convolvulaceae	Climber	W
<i>Ipomoea cairica</i> Sweet	Convolvulaceae	Climber	W
<i>Ipomoea carnea</i> Jace	Convolvulaceae	Shrub	W
<i>Ipomoea hederifolia</i> L.	Convolvulaceae	Climber	W
<i>Ipomoea nil</i> (L.) Roth	Convolvulaceae	Climber	W
<i>Ipomoea obscura</i> (L.) Ker. Gawler	Convolvulaceae	Climber	W
<i>Ipomoea quamoclit</i> L.	Convolvulaceae	Climber	W
<i>Ixora brachiata</i> Roxb.	Rubiaceae	Tree	W
<i>Ixora chinensis</i> Lam.	Rubiaceae	Shrub	C
<i>Ixora coccinea</i> L.	Rubiaceae	Shrub	C
<i>Jatropha curcus</i> L.	Euphorbiaceae	Shrub	W
<i>Jatropha gossypifolia</i> L.	Euphorbiaceae	Shrub	W
<i>Jatropha podagrica</i> Hook.	Euphorbiaceae	Shrub	C
<i>Justicia simplex</i> Lindau	Acanthaceae	Herb	W
<i>Kydia calycina</i> Roxb.	Malvaceae	Tree	W
<i>Lablab purpureus</i> (L.) Sweet	Fabaceae	Climber	W
<i>Lagerstroemia indica</i> L.	Lythraceae	Shrub	W
<i>Lagerstroemia parviflora</i> Roxb.	Lythraceae	Tree	W
<i>Lannea coromandelica</i> (Houtt.) Merr.	Anacardiaceae	Tree	W
<i>Lantana camara</i> L.	Verbenaceae	Shrub	W
<i>Lathyrus sativus</i> L.	Fabaceae	Herb	W
<i>Lawsonia inermis</i> L.	Lythraceae	Shrub	C
<i>Leea asiatica</i> (L.) Ridsdale	Vitaceae	Shrub	W
<i>Leersia hexandra</i> Sw.	Poaceae	Herb	W
<i>Leonotis nepetifolia</i> (L.) R. Br.	Lamiaceae	Herb	W
<i>Lepidagathis cristata</i> Willd.	Acanthaceae	Herb	W
<i>Leucaena leucocephala</i> (Lam.) de Wit	Fabaceae	Shrub	W
<i>Leucas aspera</i> (Willd.) Link	Fabaceae	Herb	W
<i>Leucas cephalotes</i> (Roth) Spreng	Lamiaceae	Herb	W
<i>Leucas mollissima</i> Wall. Ex. Benth.	Lamiaceae	Herb	W
<i>Linderbergia indica</i> (L.) Vatke	Orabanchaceae	Herb	W
<i>Lindernia ciliata</i> (colsm.) Pennel.	Linderniaceae	Herb	W
<i>Liparis odorata</i> (Wild.) Lindl.	Orchidaceae	Herb	W
<i>Ludwigia prostrata</i> Roxb.	Onagraceae	Herb	W
<i>Luffa aegyptiaca</i> Mill.	Cucurbitaceae	Climber	C
<i>Lycopersicon esculentum</i> Mill.	Solanaceae	Herb	C
<i>Madhuca indica</i> J.F.Gmel.	Sapotaceae	Tree	W
<i>Magnolia champaca</i> L.	Magnoliaceae	Tree	C
<i>Malchara capitata</i> (L.) L.	Malvaceae	Herb	W
<i>Mallotus philipensis</i> (Lam.) Mull. Arg.	Euphorbiaceae	Tree	W
<i>Malvaviscus penduliflorus</i> (Moc. & Sesse) ex. Dc.	Malvaceae	Shrub	W
<i>Malvestrum coromandelianum</i> (L.) Garcke	Malvaceae	Herb	W
<i>Mangifera indica</i> L.	Anacardiaceae	Tree	W



<i>Manihot esculenta</i> Crantz.	Euphorbiaceae	Shrub	W
<i>Martynia annua</i> L.	Martyniaceae	Shrub	W
<i>Mecardonia procumbens</i> (Mill.) Small	Plantaginaceae	Herb	W
<i>Melanocenchris Jacque montii</i> Jaub. & Spach.	Poaceae	Herb	W
<i>Melastoma malabathricum</i> (L.) Smith	Melastomataceae	Shrub	W
<i>Melia azedarach</i> L.	Meliaceae	Tree	W
<i>Melilotus alba</i> Desr.	Fabaceae	Herb	W
<i>Melochia corchorifolia</i> L.	Malvaceae	Herb	W
<i>Mentha viridis</i> L.	Lamiaceae	Herb	W
<i>Merremia emarginata</i> (Burm. fil.) Hall. fil.	Convolvulaceae	Climber	W
<i>Merrimia dissecta</i> (jacquinn) Hall. Fil	Convolvulaceae	Climber	W
<i>Micromeria biflora</i> (Buch.-Ham. Ex D. Don.) Benth	Lamiaceae	Herb	W
<i>Milletia pinnata</i> (L.) Panigrahi	Fabaceae	Tree	W
<i>Mimosa pudica</i> L.	Fabaceae	Herb	W
<i>Mimosa rubicaulis</i> Lam.	Fabaceae	Shrub	W
<i>Mimusops elengi</i> L	Sapotaceae	Shrub	W
<i>Mirabilis jalapa</i> L.	Nyctaginaceae	Herb	W
<i>Mitragyna parviflora</i> L.	Rubiaceae	Tree	W
<i>Mollugo pentaphylla</i> L.	Molluginaceae	Herb	W
<i>Momordica charantia</i> L.	Cucurbitaceae	Climber	C
<i>Monochoria vaginalis</i> (Burm.f.) C. Press	Pontederiaceae	Herb	W
<i>Moringa oleifera</i> Lam.	Moringaceae	Tree	C
<i>Mucuna pruriens</i> (L.) DC	Fabaceae	Climber	W
<i>Mukia maderspatana</i> (L.) M. Roem.	Cucurbitaceae	Climber	W
<i>Murdannia nudiflora</i> (L.) Brenn	Commelinaceae	Herb	W
<i>Murraya paniculata</i> (L.) Jacq.	Rutaceae	Shrub	W
<i>Murraya koenigii</i> (L.) Spreng.	Rutaceae	Shrub	W
<i>Nelumbo nucifera</i> J. Gaertn	Nelumbonaceae	Herb	W
<i>Nerium oleander</i> L.	Apocynaceae	Shrub	C
<i>Nervillia crocififormis</i> (Zoll. & Moritzi) Seidenf*	Orchidaceae	Herb	W
<i>Nervillia aragoana</i> Gaudich*	Orchidaceae	Herb	W
<i>Nymphoides indica</i> (L.) Kuntz	Menyanthaceae	Herb	W
<i>Oberonia falconeri</i> Hook. F.	Orchidaceae	Herb	W
<i>Ocimum basilicum</i> L.	Lamiaceae	Herb	W
<i>Ocimum canum</i> Sims	Lamiaceae	Herb	W
<i>Ocimum sanctum</i> Linn.	Lamiaceae	Herb	W
<i>Olax scandens</i> Roxb.	Olaceae	Shrub	W
<i>Oldenlandia corymbosa</i> L.	Rubiaceae	Herb	W
<i>Orthosiphon thymiflorus</i> (Roth) Sleesen	Fabaceae	Herb	W
<i>Oxalis corniculata</i> L.	Oxalidaceae	Herb	W
<i>Passiflora foetida</i> L.	Passifloraceae	Climber	W
<i>Pavetta crassicaulis</i> Bremek.	Rubiaceae	Shrub	W
<i>Peltaforium pterocarpum</i> Auct. non K. Heyne	Fabaceae	Tree	C
<i>Pentanema indicum</i> (L.)	Asteraceae	Herb	W
<i>Pergularia daemia</i> (Forsskal) Chior.	Apocynaceae	Climber	W
<i>Peristrophe paniculata</i> (Forssk.) R.K. Brummitt	Acanthaceae	Herb	W
<i>Peristylus lawii</i> Wight	Orchidaceae	Herb	W
<i>Phaulopsis dorsiflora</i>	Acanthaceae	Herb	W
<i>Phoenix sylvestris</i> (L.) Roxb.	Palmaceae	Shrub	W
<i>Phyllanthus amarus</i> Schumacher & Thonn.	Phyllanthaceae	Herb	W
<i>Phyllanthus emblica</i> L.	Phyllanthaceae	Shrub	W
<i>Phyllanthus reticulatus</i> Poir.	Phyllanthaceae	Shrub	W
<i>Phyllanthus urinaria</i> L.	Phyllanthaceae	Herb	W
<i>Phyllanthus virgatus</i> G. Forst.	Phyllanthaceae	Herb	W
<i>Physalis minima</i> L.	Solanaceae	Herb	W
<i>Piper betel</i> L.	Piperaceae	Climber	C

<i>Pistia stratiotes</i> L.	Araceae	Herb	W
<i>Pithecellobium dulce</i> (Roxb.) Benth.	Fabaceae	Tree	C
<i>Platanthera sussanne</i> (L.)	Orchidaceae	Herb	W
<i>Plectranthus mollis</i> (W.T.) Aiton Spreng	Lamiaceae	Herb	W
<i>Plumbago zeylanica</i> L.	Plumbaginaceae	Shrub	W
<i>Plumeria obtusa</i> L.	Apocynaceae	Shrub	C
<i>Pogostemon benghalensis</i> (Burm. F.) Kuntze	Lamiaceae	Shrub	W
<i>Polyalthia longifolia</i> (Sonn.) thwaites	Annonaceae	Tree	C
<i>Polygonum glabrum</i> Willd.	Polygonaceae	Herb	W
<i>Psidium guajava</i>	Myrtaceae	Tree	C
<i>Pterocarpus marsupium</i> Roxb.	Fabaceae	Tree	W
<i>Punica granatum</i> L.	Lythraceae	Shrub	C
<i>Rauvolfia tetraphylla</i> L.	Apocynaceae	Shrub	C
<i>Reinwardtia indica</i> Dumort.	Linaceae	Herb	W
<i>Rhynchosyris retusa</i> (L.) Blumea	Orchidaceae	Herb	W
<i>Ricinus communis</i> L.	Euphorbiaceae	Shrub	W
<i>Rivina humilis</i> L.	Phytolaccaceae	Herb	W
<i>Rotala rosea</i> (Poir) C. D.K. Cook	Lythraceae	Herb	W
<i>Ruellia tuberosa</i> L.	Acanthaceae	Herb	W
<i>Rumex crispus</i> L.	Polygonaceae	Herb	W
<i>Rungia pectinata</i> (L.) Nees	Acanthaceae	Herb	W
<i>Rungia repens</i> (L.) Nees.	Acanthaceae	Herb	W
<i>Saccharum benghalense</i>	Poaceae	Herb	W
<i>Sagittaria guayanensis</i> H.B.K <i>ssp. Lappula</i> (D.Don) Bogin	Alismataceae	Herb	W
<i>Salvia plebeia</i> R. Br.	Lamiaceae	Herb	W
<i>Salvia splendens</i> Sellow ex. Schult	Lamiaceae	Herb	C
<i>Sansevieria trifasciata</i> prain	Aspargaceae	Herb	W
<i>Sapindus emarginatus</i> Vahl.	Sapindaceae	Tree	W
<i>Sauromatum venosum</i> (Aiton) Schott	Araceae	Herb	W
<i>Scadoxus multiflorus</i> (Martyn) Raf.	Amaryllidaceae	Herb	W
<i>Scorparia dulcis</i> L.	Plantaginaceae	Herb	W
<i>Scurrla parasiticus</i> L.	Loranthaceae	Herb	W
<i>Securinega virosa</i> (Roxb. Ex Willd.) Bail.	Euphorbiaceae	Shrub	W
<i>Semicarpus anacardium</i> Linn.	Anacardeaceae	Tree	W
<i>Senna siamea</i> (Lam.) H. S. Irwin & Barneby	Fabaceae	Tree	C
<i>Sesamum indicum</i> L.	Pedaliaceae	Herb	C
<i>Setaria viridis</i> (L.) P. Beauv.	Poaceae	Herb	W
<i>Shorea robusta</i> Gaertn.	Dipterocarpaceae	Tree	W
<i>Sida acuta</i> Burm.f.	Malvaceae	Herb	W
<i>Sida cordata</i> (Burm. f.) Borss. Waalk	Malvaceae	Herb	W
<i>Smilax anceps</i> Willd.	Smilacaceae	Climber	W
<i>Solanum melongena</i> L.	Solanaceae	Shrub	C
<i>Solanum nigrum</i> L.	Solanaceae	Shrub	W
<i>Solanum torvum</i> Sw.	Solanaceae	Shrub	W
<i>Solanum xanthocarpum</i> Schard. & J. C. Wendle.	Solanaceae	Herb	W
<i>Soymida febrifuga</i> (Roxb.)	Meliaceae	Tree	W
<i>Spermocoe ocymoides</i> Burm. f.	Rubiaceae	Herb	W
<i>Sphaeranthus indicus</i> Linn.	Asteraceae	Herb	W
<i>Spinacia oleracea</i> L.	Amaranthaceae	Herb	C
<i>Stellaria media</i> (L.) Vill.	Caryophyllaceae	Herb	W
<i>Sterculia urens</i> Roxb.	Malvaceae	Tree	W
<i>Strobilanthes auriculatus</i> nees	Acanthaceae	Shrub	W
<i>Syzygium cumini</i> (L.) Skeels	Myrtaceae	Shrub	W
<i>Tabernaemontana divaricata</i> (L.) R. Br. ex Roem. & Schult.	Apocynaceae	Shrub	C
<i>Tacca leontopetaloides</i> (L.) Kuntze	Dioscoreaceae	Herb	W

<i>Tagetes Patula</i> L.	Asteraceae	Herb	C
<i>Talinum portulacifolium</i> (Forssk.) Aschers. ex Schweinf.	Talinaceae	Herb	W
<i>Tamarindus indica</i> L.	Fabaceae	Tree	W
<i>Tamarix ericoides</i> Rottl. ex Willd.	Tamaricaceae	Herb	W
<i>Tecoma stans</i> (L.) Juss. Ex Kunth	Bignoniaceae	Shrub	C
<i>Tectona grandis</i> L.f.	Lamiaceae	Tree	W
<i>Tephroesia purpurea</i> (L.) Pers.	Fabaceae	Herb	W
<i>Terminalia bellerica</i> (Gaertn.) Roxb.	Combretaceae	Tree	W
<i>Terminalia catappa</i> L.	Combretaceae	Tree	W
<i>Terminalia chebula</i> Retz.	Combretaceae	Tree	W
<i>Terminalia arjuna</i> (Roxb.) Wight & Arn.	Combretaceae	Tree	W
<i>Themeda triandra</i> Forssk.	Poaceae	Herb	W
<i>Thespesia lampas</i> (Cav.) Dalzell & A. Gibson.	Malvaceae	Shrub	W
<i>Thevetia peruviana</i> (Pers.) K. Schum.	Apocynaceae	Shrub	C
<i>Thunbergia fragrans</i>	Acanthaceae	Climber	W
<i>Thysanolaena maxima</i> (Roxb.) Kuntze.	Poaceae	Herb	W
<i>Tradescantia Pallida</i> (Rose) D.R. Hunt.	Commelinaceae	Herb	W
<i>Trichosanthes dicoa</i> Roxb.	Cucurbitaceae	Climber	W
<i>Tridax procumbens</i> L.	Asteraceae	Herb	W
<i>Triumfetta rhomboidea</i> Jacq.	Malvaceae	Shrub	W
<i>Turnera ulmifolia</i> L.	Turneraceae	Herb	W
<i>Tylophora fasciculata</i> Thwaites	Apocynaceae	Climber	W
<i>Typha angustifolia</i> L.	Typhaceae	Herb	W
<i>Typhonium</i> sps.	Araceae	Herb	W
<i>Uria lagopodioides</i> (L.) DC.	Fabaceae	Herb	W
<i>Urena lobata</i> L.	Malvaceae	Herb	W
<i>Urena sinuata</i> L.	Malvaceae	Herb	W
<i>Utricularia bifida</i> L.	Lentibulariaceae	Herb	W
<i>Utricularia reticulata</i> Sm.	Lentibulariaceae	Herb	W
<i>Vallis solanaceae</i> (Roth) Kuntze.	Apocynaceae	Climber	W
<i>Vanda tessellata</i> (Roxb.) Hook. ex. G. Don.	Orchidaceae	Herb	W
<i>Ventilago denticulata</i> Willd.	Rhamnaceae	Climber	W
<i>Verbascum chinense</i> (L.) Sant	Scrophulariaceae	Herb	W
<i>Vernonia cinerea</i>	Asteraceae	Herb	W
<i>Vernonia divergens</i> (DC.) Edgew	Asteraceae	Herb	W
<i>Vicia sativa</i> L.	Fabaceae	Herb	W
<i>Vigna radiata</i> (L.) R. Wilczek	Fabaceae	Climber	W
<i>Vigna vexillata</i> (L.) A. Rich	Fabaceae	Climber	W
<i>Viscum articulatum</i> Burm. F.	Santalaceae	Herb	W
<i>Vitex negundo</i> L.	Lamiaceae	Shrub	W
<i>Waltheria indica</i> L.	Malvaceae	Herb	W
<i>Wedelia trilobata</i> (L.) Hitchc	Asteraceae	Herb	W
<i>Withania somnifera</i>	Apocynaceae	Shrub	W
<i>Woodfordia fruticosa</i> (L.) Kurz	Lythraceae	Shrub	W
<i>Wrightia tinctoria</i> Rothii (G. Don) Ngan	Apocynaceae	Tree	W
<i>Xanthium strumarium</i> L.	Asteraceae	Shrub	W
<i>Zephyranthes carinata</i> Herb.	Amoryllidaceae	Herb	C
<i>Zephyranthes citrina</i> Baker.	Amoryllidaceae	Herb	C
<i>Ziziphus mauritiana</i>	Rhamnaceae	Shrub	W

Table 2: List of Threatened Taxa of AABR

S. No.	Plant Species	Family	Criteria Based on	Status
1	<i>Abrus precatorius</i> L.	Fabaceae	A1 a, d	EN
2	<i>Abrus precatorius</i> var. <i>alba</i>	Fabaceae	A1 a, d	CR
3	<i>Acampe praemorsa</i> (Roxb.) Blatt. & Mc.Cann.	Orchidaceae	B1 a b iv	EN

4	<i>Acampe rigida</i>	Orchidaceae	B1 b iii, c i	CR
5	<i>Adina cordifolia</i> (Roxb.) Brandis	Rubiaceae	A2 a d	VU
6	<i>Aeginetia indica</i> L.	Orabanchaceae	A1 a e	EN
7	<i>Aerides multiflora</i> Roxb.	Orchidaceae	A2 a c	EN
8	<i>Andrographis paniculata</i> (Burm. fil.) Nees	Acanthaceae	A2 c d	EN
9	<i>Annona reticulata</i> L.	Annonaceae	A1 c	EN
10	<i>Anogeissus latifolia</i> (Roxb. ex. DC.)	Combretaceae	A1 a d	VU
11	<i>Aristolochia indica</i> L.	Aristolochiaceae	B 1 b iv	CR
12	<i>Asparagus racemosus</i> Willd	Aspargaceae	B2 c iii	VU
13	<i>Bigonia picta</i> Sm.	Bigoniaceae	A1 d e	VU
14	<i>Bixa orellana</i> L.	Bixaceae	A2 a, d	EN
15	<i>Brugmansia suaveolens</i> (Hemp. & Bonpl. Ex Willd)	Solanaceae	A2 a, e	CR
16	<i>Chlorophytum tuberosum</i> (Roxb) Baker	Aspargaceae	A2 a d	EN
17	<i>Cinnamomum tamala</i>	Lauraceae	A2 a c	CR
18	<i>Clerodendrum serratum</i> (L.) Moon.	Lamiaceae	B2 c iii	EN
19	<i>Cordia dichotoma</i> G. Forst.	Boraginaceae	A2 a c	CR
20	<i>Costus speciosus</i> (J. Koenig) Sm.	Costaceae	A2 a d	EN
21	<i>Curculigo orchioidea</i> Gaertn.	Hypoxidaceae	A1 c d	VU
22	<i>Curcuma caesia</i> Roxb.	Zingiberaceae	A2 c d	CR
23	<i>Curcuma pseudomontana</i> J. Graham	Zingiberaceae	A2 a c d	EN
24	<i>Dendrobium herbaceum</i> Lindl.	Orchidaceae	B 1 a c i	CR
25	<i>Drosera burmannii</i> Vahl.	Droseraceae	B1 c iii	CR
26	<i>Globba marantina</i> L.	Zingiberaceae	A2 a d	VU
27	<i>Gloriosa superba</i> L.	Colchicaceae	A1 c d	EN
28	<i>Habenaria digitata</i> Lindl.	Orchidaceae	A2 c e	EN
29	<i>Habenaria diphylla</i> (Ninumo) Dalzell	Orchidaceae	B 2 b iii	CR
30	<i>Hedychium coronarium</i> J. Koenig	Zingiberaceae	A2 a,d	EN
31	<i>Helicteres isora</i> L.	Malvaceae	A2 c,d	VU
32	<i>Hemidesmus Indicus</i> (L.) R. Br.	Apocynaceae	A2 c,d	VU
33	<i>Iphigenia indica</i> (L.) A. Gray ex Kunth	Colchicaceae	A2 a, c, d	EN
34	<i>Liparis odorata</i> (Wild.) Lindl.	Orchidaceae	A2 a, c	EN
35	<i>Madhuca indica</i> J.F.Gmel.	Sapotaceae	A2 c,d	VU
36	<i>Martynia annua</i> L.	Martyniaceae	A2 c,d	VU
37	<i>Mucuna pruriens</i> (L.) DC	Fabaceae	A2 c,d	VU
38	<i>Nervillia aragoana</i> Gaudich	Orchidaceae	B 2 b iii	EN
39	<i>Nervillia crociformis</i> (Zoll. & Moritz) Seidenf	Orchidaceae	B2 c iii	CR
40	<i>Oberonia falconeri</i> Hook. F.	Orchidaceae	B1 b iii	CR
41	<i>Peristylus lawii</i> Wight	Orchidaceae	B1 a	EN
42	<i>Platanthera sussanne</i> (L.)	Orchidaceae	B1 c iii	EN
43	<i>Plumbago zeylanica</i> L.	Plumbaginaceae	A2 c,d	EN
44	<i>Pterocarpus marsupium</i> Roxb.	Fabaceae	A2 c,d	VU
45	<i>Rauvolfia tetraphylla</i> L.	Apocynaceae	A2 c,d	EN
46	<i>Semicarpus anacardium</i> Linn.	Anacardeaceae	A2 c,d	VU
47	<i>Soymida febrifuga</i> (Roxb.)	Meliaceae	A2 c,d	VU
48	<i>Sphaeranthus indicus</i> Linn.	Asteraceae	A2 c,d	VU
49	<i>Sterculia urens</i> Roxb.	Malvaceae	A1 a d	VU
50	<i>Vitex negundo</i> L.	Lamiaceae	A2 a d	VU
51	<i>Withania somnifera</i>	Apocynaceae	A1 a d	EN

## References

1. Aadhan K. and Anand S.P. (2017). Documentation of rare, endangered and threatened medicinal plant species in Sadhuragiri Hills, Tamil Nadu, India. *International Journal of botany Studies*. 2(1):32-37.

2. Ahirwar R. K. and Sandya K. (2015). Documentation of some threatened ethno-medicinal plants used by tribes of Achanakmar-Amarkantak biosphere reserve, Central India. *International Journal of Current Microbiology and Applied Sciences*, 4(8):804-811.
3. Ahmedulla, M. and Nayar, M.P. (1986). *Endemic plants of Indian Region Botanical Survey of India, Howrah. Vol.1.*
4. Anon. (2007). Achanakmar-Amarkantak Biosphere Reserve, (BRIS) Vol.1 (1). Tropical Forest Research Institute, P.O. RFRC, Mandla Road, Jabalpur.
5. Anon. (2008). Achanakmar-Amarkantak Biosphere Reserve, (BRIS) Vol.1 (2). Tropical Forest Research Institute, P.O. RFRC, Mandla Road, Jabalpur.
6. Anon. (2010). Achanakmar-Amarkantak Biosphere Reserve, (BRIS) Vol.2 (1-2). Tropical Forest Research Institute, P.O. RFRC, Mandla Road, Jabalpur.
7. Bharti V.K. (2015). The Rare and Threatened Plants of Shahdol Division Forest of (M.P).India. *International Journal of Applied Research*, 1(12):545-548.
8. Burton J. 2003. On Red Lists & IUCN, *Plant Talk*, 32:4-5.
9. Chaudhary A. B. and Sarkar D. D. (2002). *Biodiversity endangered: Indian threatened wildlife and Medicinal plants.* Scientific Publishers, Jodhpur.
10. Das, A. K. (2003). Biodiversity conservation in Arunachal Pradesh: Concerns and Strategies, 168-173. : In Singh et al. (eds.) *Ethno-medicine of North-East India*. NISCAIR, New Delhi.
11. ENVIS, (2010). Centre on Conservation of Medicinal Plants, FRLHT, Bangalore. <http://envisfrlht.org> 22 September -2010.
12. Ghate V. S. and Vartak, V. D. (1990). Biodiversity in the flora of Maharashtra: Its status evaluation and Conservation, *Indian environmental Society*, New Delhi, 201-207.
13. Hooker J. D. (1872-1897). *The Flora of British India*, Vol. 1-7, Reeve & Co. Ltd., Kent, England.
14. IUCN, (2001). *IUCN Red List Categories and Criteria- Version 3.1.* IUCN-SSC.
15. IUCN, (2010). *Standards and Petitions Subcommittee. Guidelines for Using the IUCN Red List Categories and Criteria. Version 8.1. Prepared by the Standards and Petitions Subcommittee in March 2010. Downloadable from <http://intranet.iucn.org/webfiles/doc/SSC/RedList/RedListGuidelines.pdf>.*
16. Jain A. K. and Vairale M.G. (2007). Some Threatened Angiospermic Taxa of Chambal Eco-region, *Phytotaxonomy*, 07:107-110.
17. Jain, S.K. and Rao, R.R. (1977). *A Handbook of Field & Herbarium methods.* Today & Tomorrow's Printers & Publishers, New Delhi.
18. Jain, S.K. (1983). An Insight into the problems of Threatened plants. In: *An Assessment of Threatened plants of India* (Jain S.K. and Rao R.R. eds.) Botanical Survey of India. Howrah: xix-xiii.
19. Joshi K.C., Negi M.S. and Tiple Ashish D. (2010). Achanakmar-Amarkantak Biosphere Reserve. *Biosphere Reserve Information Series (BRIS)*, 2(1-2):1-158.
20. Khanna K. K., Kumar A., Dixit R. D. and Singh N.P. (2001). *Supplement to the Flora of Madhya Pradesh.* Botanical Survey of India, Calcutta.
21. Margules C. R. and Pressey R. L (2000). Systematic Conservation Planning. *Nature*, 405:243-253.

22. McNeely J. A. (1994). Protected area for the 21<sup>st</sup> century: Working to provide benefits to society. *Biodiversity and Conservation*, 3:390-405.
23. Modi, R. K. and Mathad, P. (2016). Floristic Diversity with Reference to Rare and Threatened Plants from the Forest of Yadgir District, Karnataka-India, *International Journal of Scientific Research in Science and Technology*, 2(4):524-531.
24. Mudgal V., Khanna K. K and Hajra P K. (1997). *Flora of Madhya Pradesh*, Botanical Survey of India, Calcutta. Vol. II.
25. Mujaffar S., Shukla S. K. and Mishra S. (2013). Some Angiospermic Plants New to Central India. *Sci. Res. Rept.*, 3(2):102-105.
26. Murti, S.K. and Panigrahi, G. (1999). *Flora of Bilaspur Vol. II* Botanical Survey of India, P-8, Brabourne Road, Kolkata. 396-906.
27. Nayar M.P and Shastri A. R. K. (1988). *Red Data Book of Indian Plants*. Botanical Survey of India. Calcutta.
28. Oldfield S, Lusty C. and MacKinven A.(1998). *The World List of threatened Trees*. World Conservation Press, Cambridge.
29. Ray S and Sainkhediya J. (2014). Rare and Threatened Plants of Nimar Region, MadhyaPradesh. *International Journal of Plant, Animal and Environmental Sciences*.4 (4):235-243.
30. Reid, W.V. (1992). How many species will there be?, 55-73. In: Whitemore, T. & Sayer, J. (eds.). *Tropical Deforestation and Species Extinction*. Chapman and Hall, London.
31. Singh N.P., Khanna K.K., Mudgal D. and Dixit R.D. (2001). *The flora of Madhya Pradesh Vol. III*. Botanical Survey of India, P-8, Brabourne Road, Kolkata.587.
32. Sinha M. K. (2013).Threat assessment of Medicinal Plants of Koria district in Chhattisgarh (India).*IOSR-Journal of Pharmacy and Biological Sciences*.5(2):79-86.
33. Tewari U., Bahadur A. N., Soni P., and Pandey S. (2014). Medicinal uses of some threatened species of wild herbal plants from Bilaspur District. *Indian Journal of Science and Research*, 4(1):64-69.
34. Vajravelu, E. and Daniel, P. (1983) In *Rare, Threatened and Endemic Flowering Plants of South India – I*, vol. 4, pp. 27. In: Jain, S. K. & Sastry, A. R. K. (eds). *Plant Conservation Bulletin*.
35. Ved D. K., Kinhal, G.A., Rathore, B.M.S., Ravikumar, K. Vijay Shankar, R. and Venkateshwaran. (2006).Threat assessment for prioritized medicinal plant species of Madhya Pradesh. *Proceedings of workshop on Eco-regional assimilation for conservation action. A synthesis of eco-regional expertise in Medicinal plants taxation and distribution through a workshop held at Bhopal during 3<sup>rd</sup> to 7<sup>th</sup> of January 2006*. M.P. Biodiversity Board, Beej Nigam Complex, Mother Teresa Marg Arera Hills, Bhopal and co-ordinated by FRLHT, Bangalore, Karnataka.
36. Ved, D. K., Kinhal, G.A., Ravikumar, K., Karnat, Mohan, Shankar V, R. and Venkateshwaran (2003). *Threat assessment and management prioritization for the medicinal plants of Chhattisgarh and Madhya Pradesh. Proceedings of workshop on Ecoregional assimilation for conservation action. A synthesis of regional expertise in medicinal plants taxonomy and distribution through a workshop held at Bhopal during 23<sup>rd</sup> to 26<sup>th</sup> of July 2003*. FRLHT, Bangalore, Karnataka.
37. Verma D. M., Balakrishnan N. P., and Dixit R.D. (1993) *Flora of Madhya Pradesh*, Botanical Survey of India, Calcutta. Vol.I.
38. Vinodia S. and Dixit A. K. (2017) *Habenaria diphylla* (Nimmo) Dalzell: A new additionto the orchid flora of Bilaspur district (Chhattisgarh), Central India Department of Botany, Guru Ghasidas University, Bilaspur, Chhattisgarh, India, *Current Botany*, 8: 60-65 doi: 10.19071/cb.2017.v8.3217